IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

- 1. 15.(Canceled)
- 16. (Currently Amended) The method according to claim-15, A method of infusing a fluid into a body of a user, the method comprising:

obtaining a blood glucose concentration of the user:

generating a controller input based on the blood glucose concentration;

generating commands by a proportional plus, integral plus, derivative (PID) controller from the controller input using at least one preset controller gain, wherein the PID controller is a bilinear PID controller; and

infusing a liquid based on the commands from the PID controller;

wherein the bilinear PID controller accurately estimates a hypoglycemic glucose excursion.

- 17. 31.(Canceled)
- 32. (Currently Amended) The system according to claim 31, A system for infusing a fluid into a body of a user, the system comprising:

means for obtaining a blood glucose concentration of the user;

means for generating a controller input based on the blood glucose concentration;

means for generating commands by a proportional plus, integral plus, derivative (PID) controller from the controller input using at least one preset controller gain, wherein the PID controller is a bilinear PID controller; and

means for infusing a liquid based on the commands from the PID controller;

wherein the bilinear PID controller accurately estimates a hypoglycemic glucose excursion.